

Aerospace Systems Monitor, Phase II

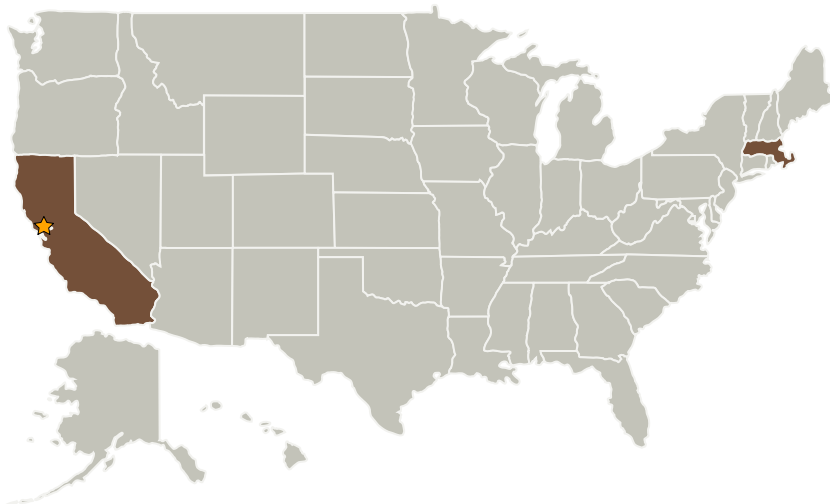
Completed Technology Project (2006 - 2008)



Project Introduction

Proposal Title: Aerospace Systems Monitor PHASE 1 Technical Abstract: This Phase II STTR project will continue development and commercialization of the Aerospace System Monitor (ASM). This technology transforms the power distribution network in a spacecraft or aircraft into a multiple-use service, providing not only power distribution but also a diagnostic monitoring capability and system health monitoring based on observations of the way in which loads draw power from the distribution service. Careful measurements are made power transients and this data is used to assess system functioning and identify potential faults and failures. In the Phase II project, development will continue on the ASM software and on power line sensors to obtain data in ground testing and in flight. ASM will be applied to reaction wheels and momentum wheels. A test bed will be built and we will demonstrate the ability to verify correct operation and identify faults and flaws in prototype and operational reaction wheels. Phase III will continue this work and apply it further to reaction wheels and to other systems and components in ground testing and in flight.

Primary U.S. Work Locations and Key Partners



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Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Center / Facility:

Ames Research Center (ARC)

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Organizations Performing Work	Role	Type	Location
★ Ames Research Center(ARC)	Lead Organization	NASA Center	Moffett Field, California
NEMOmetrics Corp.	Supporting Organization	Industry	Boston, Massachusetts

Primary U.S. Work Locations	
California	Massachusetts

Project Management

Program Director:

Jason L Kessler

Program Manager:

Carlos Torrez

Technology Areas

Primary:

- TX03 Aerospace Power and Energy Storage
 - └ TX03.3 Power Management and Distribution
 - └ TX03.3.1 Management and Control